

Listing of Claims:

1. (Pending) A device for emptying a film tube which contains a flowable substance and has a dispensing end provided with a ring, the device comprising a cylindrical housing with a displaceable piston and a cap and being adapted to receive the tube between said piston and said cap, said housing having an inner diameter and including an end portion having a ring support surface, the cap having a dispensing opening, an annular engaging portion surrounding the dispensing opening and cooperating with said ring for sealing the dispensing end of the tube, and a cylindrical end portion adapted to engage the end portion of the housing, said ring having a peripheral portion which exceeds the inner diameter of the housing for engaging said ring supporting surface, and wherein

a gap remains between mutually facing surfaces of said end portions of the housing and the cap when said housing, cap and tube are assembled with said ring abutting said engaging portion of the cap and the peripheral portion of said ring abutting said supporting surface of said housing.

2. (Pending) The device of claim 1, wherein the end portion of the cap surrounds the end portion of the housing, said ring supporting surface being formed by an end edge of the housing.

3. (Pending) The device of claim 1, wherein said ring has a conical sealing surface and said engaging portion of said cap is formed by an annular edge of said cap.

4. (Pending) A device for emptying a film tube which contains a flowable substance and has a dispensing end provided with a ring, the device comprising a cylindrical housing having an end portion, a displaceable piston and a cap and being adapted to receive the tube between said piston and said cap, the cap

having a dispensing opening and an annular engaging portion surrounding the dispensing opening and cooperating with said ring for sealing the dispensing end of the tube, the housing having a ring supporting surface which faces the cap, and the ring having a peripheral portion which exceeds the inner diameter of the housing for engaging said ring supporting surface, the end portion of the housing being further formed with an annular shoulder, said cap having an edge portion facing said annular shoulder, the housing and the cap being so dimensioned in the moving direction of said piston that a play is retained between said annular shoulder and said edge portion when said ring abuts said annular engaging portion of the cap and the peripheral portion of said ring abuts said ring supporting surface.

5. (Pending) The device of claim 4, wherein the end portion of the housing has an inner wall and the end portion of the cap has an inner wall, the peripheral portion of the ring being centered by the inner wall of the outer one of said two end portions.

6. (Pending) A method of emptying a film tube which contains a substance to be dispensed using the device of Claim 1, comprising inserting said film tube in said cylindrical housing between said piston and said cap and exerting pressure on said piston.

7. (Pending) A method of emptying a film tube which contains a substance to be dispensed using the device of Claim 2, comprising inserting said film tube in said cylindrical housing between said piston and said cap and exerting pressure on said piston.

8. (Pending) A method of emptying a film tube which contains a substance to be dispensed using the device of Claim 3, comprising inserting said

film tube in said cylindrical housing between said piston and said cap and exerting pressure on said piston.

9. (Pending) A method of emptying a film tube which contains a substance to be dispensed using the device of Claim 4, comprising inserting said film tube in said cylindrical housing between said piston and said cap and exerting pressure on said piston.

10. (Pending) A method of emptying a film tube which contains a substance to be dispensed using the device of Claim 5, comprising inserting said film tube in said cylindrical housing between said piston and said cap and exerting pressure on said piston.

11. (Pending) A device for emptying a film tube which contains a flowable substance and has a dispensing end provided with a ring, the device comprising a housing with a displaceable piston and a cap and being adapted to receive the tube between said piston and said cap,

wherein the cap has a dispensing opening, an annular engaging portion surrounding the dispensing opening and cooperating in use with said ring for sealing a dispensing end of the film tube, and a cylindrical end portion adapted to engage an end portion of the housing, and

wherein a gap remains between mutually facing surfaces of said end portions of the housing and the cap when said housing, cap and tube are assembled with said ring abutting said annular engaging portion of the cap.

12. (Pending) The device of Claim 11, wherein said ring has a conical sealing surface and said engaging portion is formed by an annular portion of said cap.

13. (Pending) The device of Claim 11, wherein said ring has an annular sealing surface and said engaging portion is formed by an annular portion of said cap which in use abuttingly engages said annular sealing surface of said ring.

14. (Pending) A method of emptying a film tube which contains a flowable substance using the device of Claim 11, comprising inserting said film tube in said housing between said piston and said cap and exerting pressure on said piston.

15. (Pending) A method of emptying a film tube contains a flowable substance using the device of Claim 12, comprising inserting said film tube in said housing between said piston and said cap and exerting pressure on said piston.

16. (Pending) A method of emptying a film tube which contains a flowable substance using the device of Claim 13, comprising inserting said film tube in said housing between said piston and said cap and exerting pressure on said piston.

17. (Pending) A device for emptying a film tube which contains a flowable substance and has a dispensing end provided with a ring, the device comprising a housing having an end portion, a displaceable piston and a cap and being adapted to receive the tube between said piston and said cap in said housing, the cap having a dispensing opening and an annular engaging portion surrounding the dispensing opening and cooperating with said ring for sealing the dispensing end of the tube, the end portion of the housing being further formed with an annular shoulder, said cap having an edge portion facing said annular shoulder, the housing and the cap being so dimensioned in the moving direction of said piston that a gap is retained between said annular shoulder and said edge portion of the cap.

18. (Pending) A method of emptying a film tube which contains a flowable substance using the device of Claim 17, comprising inserting said film tube in said housing between said piston and said cap and exerting pressure on said piston.

19. (Pending) An assembly for dispensing a flowable substance from a film tube, said assembly comprising:

a housing having housing side walls,
a piston movably disposed in said housing, and
a detachable end cap operable to close an end of the housing,
wherein said end cap, said housing sidewalls, and said piston
together form a film tube accommodating space, and
wherein said housing and said end cap have mutually facing end
portion surfaces configured such that, during use with a film tube in said
space and the end cap in an assembled condition, said end portion surfaces
are spaced from one another to form a gap to thereby ensure that pressure
exerted on the film tube by the piston results in a sealing force between
the ring and cap even with jamming of the film tube in the interior of the
housing.

20. (Pending) A method of dispensing a flowable substance using the assembly of Claim 19, comprising inserting said film tube in said space and exerting pressure on said piston.

21. (Cancelled)

22. (Cancelled)

23. (Pending) An assembly for dispensing a flowable substance, comprising:

a housing having housing side walls,

a piston movably disposed in said housing,

a detachable end cap operable to close an end of the housing, said end cap, said housing sidewalls, and said piston together forming a film tube accommodating space, and

a film tube disposed in said space and containing a flowable substance,

wherein said housing and said end cap have mutually facing end portion surfaces configured such that, during use with a film tube in said space and the end cap in an assembled condition, said end portion surfaces are spaced from one another to form a gap to thereby ensure that pressure exerted on the film tube by the piston results in a sealing force between the ring and cap even with jamming of the film tube in the interior of the housing.

24. (Pending) An assembly according to Claim 23, wherein said flowable substance is dental impression material.

25. (Pending) A method of dispensing a flowable substance using the assembly of Claim 23, comprising exerting pressure on said piston.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)

37. (Cancelled)

38. (Cancelled)